

What is claimed is:

1. A system for transmitting a first image including a first software and for transmitting a second image including a second software, wherein the first and second images include common file data, wherein the first image  
5 includes first file data and wherein the second image includes second file data which is different from the first file data, said system comprising:  
a server;  
a first destination device;  
10 a second destination device;  
a shared network linking the server to the first and second destination devices;  
wherein the server is adapted to simultaneously transmit the common data to the first and second destination devices  
15 via the shared network; and  
wherein the server is adapted to transmit the first file data to the first destination device via the shared network and the second file data to the second destination device via the shared network.

2. The system of claim 1 further comprising:  
said server transmitting the first image including the first software and the second image including the second software in a single combined image stream from which the  
5 first image and/or the second image can each be re-created by imaging.

3. The system of claim 1:  
wherein the server is adapted to transmit first descriptive data to the first destination device via the shared

network, said first descriptive data identifying the common  
5 data and first file data of the first image; and  
wherein the server is adapted to transmit second  
descriptive data to the second destination device via the  
shared network, said second descriptive data identifying  
the common data and second file data of the second image.

4. The system of claim 3:  
wherein the first destination device receives the common  
data and the first file data via the shared network as  
defined by the first descriptive data transmitted to the  
5 first destination device from the server.

5. The system of claim 3:  
wherein the second destination device receives the common  
data and the second file data via the shared network as  
defined by the second descriptive data transmitted to the  
5 second destination device from the server.

6. The system of claim 3 wherein the server directly  
transmits the first descriptive data to the first  
destination device and the server directly transmits the  
second descriptive data to the second destination device,  
5 and wherein the server multicasts the common data, the  
first file data and the second file data simultaneously to  
the first and second destination devices.

7. The system of claim 3 wherein the server maintains a  
list of destination devices and images to be transmitted to  
destination devices on the list and multicasts common data  
and file data corresponding to the images to be transmitted  
5 to destination device on the list.

8. The system of claim 3 wherein the server multicasts the common data, the first file data and the second file data to the first and second destination devices including a unique identifier for the data currently being transmitted.

9. The system of claim 8 wherein the first destination device receives the common data, the first file data and the second file data and stores only the common data and first file data as indicated by the unique identifier.

10. The system of claim 7 wherein the first destination device provides a first notification to the server when the first destination device has received the common data and the file data corresponding to the first descriptive data.

11. The system of claim 10 wherein the server, in response to the first notification, removes the first destination device from the list and discontinues multicasting the file data of the first image, unless another destination device  
5 has requested the first image.

12. The system of claim 10 wherein the server, in response to the second notification, removes the second destination device from the list and discontinues multicasting the common data of the second image, unless another destination  
5 device has requested an image which includes the common data.

13. The system of claim 10 wherein the first destination device reconstructs the image corresponding to the first descriptive data.

14. The system of claim 1 wherein the server is adapted to transmit a plurality of multicast streams including common and/or descriptive data and wherein the servers selects a number of multicast streams as a function of destination  
5 device restore time and as a function of total bandwidth of the streams being transmitted.

15. The system of claim 1 wherein the server is configures to sequentially transmit the file data in a sequence defined by a priority.

16. The system of claim 1 for transmitting a third image including a third software, wherein the first and third images include common file data, wherein the third image includes third file data which is different from the first  
5 file data and which is different from the second file data, said system further comprising:  
a third destination device;  
said shared network linking the server to the third destination device;  
10 wherein the server is adapted to simultaneously transmit the common data to the first, second and third destination devices via the shared network; and  
wherein the server is adapted to transmit the third file data to the third destination device via the shared  
15 network.

17. A method for transmitting a first image including a first software to a first destination device and for transmitting a second image including a second software to a second destination device, wherein the first and second  
5 images include common file data, wherein the first image includes first file data and wherein the second image

includes second file data which is different from the first file data, said method comprising:  
simultaneously transmitting the common data to the first  
10 and second destination devices;  
transmitting the first file data to the first destination device; and  
transmitting the second file data to the second destination device.

18. The method of claim 17 further comprising:  
transmitting the first image including the first software and the second image including the second software in a single combined image stream from which the first image  
5 and/or the second image can each be re-created by imaging.

19. The method of claim 17 further comprising:  
transmitting to the first destination device first descriptive data of the first image identifying the common data and first file data;  
5 transmitting to the second destination second device descriptive data of the second image identifying the common data and second file data.

20. The method of claim 19 further comprising:  
receiving by the first destination device the common data and the first file data as defined by the first descriptive data transmitted to the first destination device.

21. The method of claim 19 further comprising:  
receiving by the second destination device the common data and the second file data as defined by the second

descriptive data transmitted to the second destination  
5 device.

22. The method of claim 19 further comprising directly  
transmitting the first descriptive data to the first  
destination device, directly transmitting the second  
descriptive data to the second destination device, and  
5 multicasting the common data, the first file data and the  
second file data simultaneously to the first and second  
destination devices.

23. The method of claim 19 further comprising maintaining  
a list of destination devices and images to be transmitted  
to destination devices on the list and multicasting common  
data and file data corresponding to the images to be  
5 transmitted to destination device on the list.

24. The method of claim 19 further comprising multicasting  
the common data, the first file data and the second file  
data to the first and second destination devices including  
a unique identifier for the data currently being  
5 transmitted.

25. The method of claim 24 wherein the first destination  
device receives the common data, the first file data and  
the second file data and stores only the common data and  
first file data as indicated by the unique identifier.

26. The method of claim 23 wherein the first destination  
device provides a first notification to the server when the  
first destination device has received the common data and  
the file data corresponding to the first descriptive data.

27. The method of claim 26 wherein, in response to the first notification, removing the first destination device from the list and discontinuing multicasting the file data of the first image, unless another destination device has requested the first image.

28. The method of claim 26 wherein, in response to the second notification, removing the second destination device from the list and discontinuing multicasting the common data of the second image, unless another destination device has requested an image which includes the common data.

29. The method of claim 26 wherein the first destination device reconstructs the image corresponding to the first descriptive data.

30. The method of claim 17 transmitting a plurality of multicast streams including common and/or descriptive data and selecting a number of multicast streams as a function of destination device restore time and as a function of total bandwidth of the streams being transmitted.

31. The method of claim 17 further comprising sequentially transmitting the file data in a sequence defined by a priority.

32. The method of claim 17 for transmitting a third image including a third software, wherein the first and third images include common file data, wherein the third image includes third file data which is different from the first file data and which is different from the second file data, said method further comprising:

simultaneously transmitting the common data to the first,  
second and third destination devices via the shared  
network; and  
10 transmitting the third file data to the third destination  
device via the shared network.

33. A client side system for receiving a first transmitted  
image including a first software from a server, the server  
also transmitting a second image including a second  
software, wherein the first and second images include  
5 common file data, wherein the first image includes first  
file data and wherein the second image includes second file  
data which is different from the first file data, wherein  
the server transmits the first image including the first  
software and the second image including the second software  
10 in a single combined image stream from which the first  
image and/or the second image can each be re-created by  
imaging, wherein the server is adapted to transmit via the  
shared network to the first destination device descriptive  
data of the first image identifying the common data and  
15 first file data, wherein the server is adapted to transmit  
via the shared network to the first and second destination  
devices the common data and file data including the first  
file data and the second file data; said client side system  
comprising:  
20 a destination device including:  
a link to the server;  
software for receiving the descriptive data of the first  
image; and  
software for receiving the combined image stream; and  
25 software responsive to the received descriptive data of the  
first image for storing the common file data and the first  
file data.

34. The client side system of claim 33 wherein the server directly transmits the first descriptive data to the first destination device and the server directly transmits the second descriptive data to the second destination device,  
5 and wherein the server multicasts the common data, the first file data and the second file data simultaneously to the first and second destination devices.

35. The client side system of claim 33:  
wherein the first destination device receives the common data and the first file data via the shared network as defined by the first descriptive data transmitted to the  
5 first destination device from the server.

36. The client side system of claim 33:  
wherein the second destination device receives the common data and the second file data via the shared network as defined by the second descriptive data transmitted to the  
5 second destination device from the server.

37. The client side system of claim 33 for transmitting a third image including a third software, wherein the first and third images include common file data, wherein the third image includes third file data which is different  
5 from the first file data and which is different from the second file data, said system further comprising:  
a third destination device;  
said shared network linking the server to the third destination device;  
10 wherein the server is adapted to simultaneously transmit the common data to the first, second and third destination devices via the shared network; and

wherein the server is adapted to transmit the third file  
data to the third destination device via the shared  
15 network.

38. A client side system for use on a destination device  
for receiving a first transmitted image including a first  
software from a server, the server also transmitting a  
second image including a second software, wherein the first  
5 and second images include common file data, wherein the  
first image includes first file data and wherein the second  
image includes second file data which is different from the  
first file data, wherein the server transmits the first  
image including the first software and the second image  
10 including the second software in a single combined image  
stream from which the first image and/or the second image  
can each be re-created by imaging, wherein the server is  
adapted to transmit via the shared network to the first  
destination device descriptive data of the first image  
15 identifying the common data and first file data, wherein  
the server is adapted to transmit via the shared network to  
the first and second destination devices the common data  
and file data including the first file data and the second  
file data; said client side system comprising:  
20 software for receiving the descriptive data of the first  
image;  
software for receiving the combined image stream; and  
software responsive to the received descriptive data of the  
first image for storing the common file data and the first  
25 file data.

39. A client side method in which a destination device  
receives a first transmitted image including a first  
software from a server, wherein the server also transmits a

second image including a second software, wherein the first  
5 and second images include common file data, wherein the  
first image includes first file data and wherein the second  
image includes second file data which is different from the  
first file data, wherein the server transmits the first  
image including the first software and the second image  
10 including the second software in a single combined image  
stream from which the first image and/or the second image  
can each be re-created by imaging, wherein the server is  
adapted to transmit via the shared network to the first  
destination device descriptive data of the first image  
15 identifying the common data and first file data, wherein  
the server is adapted to transmit via the shared network to  
the first and second destination devices the common data  
and file data including the first file data and the second  
file data; said client side method comprising:  
20 receiving the descriptive data of the first image; and  
receiving the combined image stream; and  
storing the common file data and the first file data in  
response to the received descriptive data of the first  
image.

40. A server side system for transmitting a first image  
including a first software and for transmitting a second  
image including a second software, wherein the first and  
second images include common file data, wherein the first  
5 image includes first file data and wherein the second image  
includes second file data which is different from the first  
file data, said system comprising:  
a server linked to first and second destination devices via  
a shared network;

10 wherein the server is adapted to simultaneously transmit  
the common data to the first and second destination devices  
via the shared network; and  
wherein the server is adapted to transmit the first file  
data to the first destination device via the shared network  
15 and the second file data to the second destination device  
via the shared network.

41. The server side system of claim 40 further comprising:  
said server transmitting the first image including the  
first software and the second image including the second  
software in a single combined image stream from which the  
5 first image and/or the second image can each be re-created  
by imaging.

42. The server side system of claim 40:  
wherein the server is adapted to transmit first descriptive  
data to the first destination device via the shared  
network, said first descriptive data identifying the common  
5 data and first file data of the first image; and  
wherein the server is adapted to transmit second  
descriptive data to the second destination device via the  
shared network, said second descriptive data identifying  
the common data and second file data of the second image.

43. The server side system of claim 42 wherein the server  
directly transmits the first descriptive data to the first  
destination device and the server directly transmits the  
second descriptive data to the second destination device,  
5 and wherein the server multicasts the common data, the  
first file data and the second file data simultaneously to  
the first and second destination devices.

44. The server side system of claim 42 wherein the server maintains a list of destination devices and images to be transmitted to destination devices on the list and multicasts common data and file data corresponding to the  
5 images to be transmitted to destination device on the list.

45. The server side system of claim 40 wherein the server is adapted to transmit a plurality of multicast streams including common and/or descriptive data and wherein the servers selects a number of multicast streams as a function  
5 of destination device restore time and as a function of total bandwidth of the streams being transmitted.

46. The server side system of claim 40 wherein the server is configures to sequentially transmit the file data in a sequence defined by a priority.

47. The server side system of claim 40 for transmitting a third image including a third software to a third destination device, wherein the first and third images include common file data, wherein the third image includes  
5 third file data which is different from the first file data and which is different from the second file data, said system further comprising:  
said shared network linking the server to the third destination device;  
10 wherein the server is adapted to simultaneously transmit the common data to the first, second and third destination devices via the shared network; and  
wherein the server is adapted to transmit the third file data to the third destination device via the shared  
15 network.

48. A server side method for transmitting a first image including a first software and for transmitting a second image including a second software, wherein the first and second images include common file data, wherein the first  
5 image includes first file data and wherein the second image includes second file data which is different from the first file data, said method comprising:  
simultaneously transmitting the common data to the first and second destination devices via the shared network; and  
10 transmitting the first file data to the first destination device via the shared network; and  
transmitting the second file data to the second destination device via the shared network.

49. The server side method of claim 48 further comprising:  
transmitting the first image including the first software and the second image including the second software in a single combined image stream from which the first image  
5 and/or the second image can each be re-created by imaging.

50. The server side method of claim 48 further comprising:  
transmitting first descriptive data to the first destination device via the shared network, said first descriptive data identifying the common data and first file  
5 data of the first image; and  
transmitting second descriptive data to the second destination device via the shared network, said second descriptive data identifying the common data and second file data of the second image.

51. The server side method of claim 50 further comprising directly transmitting the first descriptive data to the first destination device and directly transmitting the

second descriptive data to the second destination device,  
5 and multicasting the common data, the first file data and  
the second file data simultaneously to the first and second  
destination devices.

52. The server side method of claim 50 further comprising  
maintaining a list of destination devices and images to be  
transmitted to destination devices on the list and  
multicasting common data and file data corresponding to the  
5 images to be transmitted to destination device on the list.

53. The server side method of claim 48 further comprising  
transmitting a plurality of multicast streams including  
common and/or descriptive data and wherein the servers  
selects a number of multicast streams as a function of  
5 destination device restore time and as a function of total  
bandwidth of the streams being transmitted.

54. The server side method of claim 48 further comprising  
sequentially transmitting the file data in a sequence  
defined by a priority.

55. The server side method of claim 48 for transmitting a  
third image including a third software to a third  
destination device, wherein the first and third images  
include common file data, wherein the third image includes  
5 third file data which is different from the first file data  
and which is different from the second file data, said  
method further comprising:  
simultaneously transmitting the common data to the first,  
second and third destination devices via the shared  
10 network; and

transmitting the third file data to the third destination device via the shared network.

56. A data transmission method of transmitting a first image including a first software and a second image including a second software into a single combined image stream from which the first image and/or the second image can each be re-created by imaging onto a destination device, wherein the first and second images include common file data, wherein the first image includes first file data and wherein the second image includes second file data which is different from the first file data, said method comprising:

transmitting descriptive data of the first image identifying the common data and first file data; transmitting descriptive data of the second image identifying the common data and second file data; and transmitting the common data and file data including the first file data and the second file data.

57. The data transmission method of claim 56 wherein the transmitting of the descriptive data is on a different channel than the transmitting of the common data and the file data.

58. The data transmission method of claim 56 wherein the transmitting of the common data and the file data comprising sequentially transmitting the common data, the first file data and the second file data.

59. The data transmission method of claim 56 further comprising:

transmitting the first image including the first software  
and the second image including the second software in a  
5 single combined image stream from which the first image  
and/or the second image can each be re-created by imaging.

60. The data transmission method of claim 56:  
transmitting first descriptive data to the first  
destination device via the shared network, said first  
descriptive data identifying the common data and first file  
5 data of the first image; and  
transmitting second descriptive data to the second  
destination device via the shared network, said second  
descriptive data identifying the common data and second  
file data of the second image.

61. The data transmission method of claim 60 further  
comprising directly transmitting the first descriptive data  
to the first destination device and directly transmitting  
the second descriptive data to the second destination  
5 device, and multicasting the common data, the first file  
data and the second file data simultaneously to the first  
and second destination devices.

62. The data transmission method of claim 60 further  
comprising transmitting a plurality of multicast streams  
including common and/or descriptive data and selecting a  
number of multicast streams as a function of destination  
5 device restore time and as a function of total bandwidth of  
the streams being transmitted.

63. The data transmission method of claim 60 further  
comprising sequentially transmitting the file data in a  
sequence defined by a priority.

64. The data transmission method of claim 60 for transmitting a third image including a third software to a third destination device, wherein the first and third images include common file data, wherein the third image  
5 includes third file data which is different from the first file data and which is different from the second file data, said method further comprising:  
simultaneously transmitting the common data to the first, second and third destination devices via the shared  
10 network; and  
transmitting the third file data to the third destination device via the shared network.

65. A modulated data signal having a data structure stored thereon including a first image including a first software and including a second image including a second software, wherein the first and second images include common file  
5 data, wherein the first image includes first file data and wherein the second image includes second file data which is different from the first file data, said data structure comprising:  
a first field including the common data;  
10 a second field including first file data; and  
a third field including second file data.

66. The data structure of claim 65 further comprising a single combined image stream from which the first image and/or the second image can each be re-created by imaging.

67. The data structure of claim 65 further comprising:

first descriptive data identifying the common data and  
first file data of the first image; and  
second descriptive data identifying the common data and  
5 second file data of the second image.

68. The data structure of claim 65 including a plurality  
of multicast streams including common and/or descriptive  
data and wherein the number of multicast streams as a  
function of destination device restore time and as a  
5 function of total bandwidth of the streams being  
transmitted.

69. A computer readable medium storing instructions for  
use on a destination device for receiving a first  
transmitted image including a first software from a server,  
the server also transmitting a second image including a  
5 second software, wherein the first and second images  
include common file data, wherein the first image includes  
first file data and wherein the second image includes  
second file data which is different from the first file  
data, wherein the server transmits the first image  
10 including the first software and the second image including  
the second software in a single combined image stream from  
which the first image and/or the second image can each be  
re-created by imaging, wherein the server is adapted to  
transmit via the shared network to the first destination  
15 device descriptive data of the first image identifying the  
common data and first file data, wherein the server is  
adapted to transmit via the shared network to the first and  
second destination devices the common data and file data  
including the first file data and the second file data;  
20 said instructions comprising:

software for receiving the descriptive data of the first image;  
software for receiving the combined image stream; and  
software responsive to the received descriptive data of the  
25 first image for storing the common file data and the first  
file data.

70. A computer readable medium storing instructions for use on a server for transmitting a first image including a first software and for transmitting a second image including a second software, wherein the first and second  
5 images include common file data, wherein the first image includes first file data and wherein the second image includes second file data which is different from the first file data, said instructions comprising:  
software for linking the server to first and second  
10 destination devices via a shared network;  
software for adapting the server to simultaneously transmit the common data to the first and second destination devices via the shared network; and  
software for adapting the server to transmit the first file  
15 data to the first destination device via the shared network and the second file data to the second destination device via the shared network.